



GLM PLT & Cal/Val Status

William Koshak, NASA/MSFC

GLM Annual Science Team Meeting

Cal/Val Tools Developers Forum

9-11 September 2015



Numerous Activities



- ☐ **VaLiD Tool Development (Bateman et al.)**
- ☐ **GLM Proxy Data Development (for various simulated testing)**
- ☐ **Test/Tune/Mod L0-L1b & L1b-L2 Spec Algorithms (Mach)**
- ☐ **Participate in Technical Interchange Meetings (TIMs)**
- ☐ **Provide Independent Evaluations of Expected GLM Instr. Performance**
- ☐ **Validation Field Campaign Planning, including AGS development**
- ☐ **Support & Plan Pre-Launch Data Operation Exercises (DOEs)**
- ☐ ***Develop MSFC GLM Data Management Plan (DMP)***
- ☐ **Update “Living Documents” (ATBD, Cal/Val Plans I & II, RIMP, ...)**
- ☐ ***Develop Post-Launch Product Tests (PLPTs)***
- ☐ **Support Response to Aerospace Independent Assessment of PLPTs**

Overview of GLM Post Launch Product Tests (PLPTs)

GLM L2 001 series. Validate DE/FAR with Medium to Long Range Networks (**7**: ATDNet, BrazilDAT, ENTLN, GLD360, NLDN, RinDAT, STARNet)

GLM L2 002 series . Validate DE/FAR with Short Range Networks (**11**: NALMA, TLMA, DCLMA, FCLMA, NGLMA, HLMA, KSCLMA, NMLMA, OKLMA, WTLMA, WILMA)

GLM L2 003 series . Validate GLM DE/FAR with Very Long Range Systems (**4**: ABI, NEXRAD, SEVERI, WWLLN)

GLM L2 004 series. Validate GLM DE/FAR with Very Short Range Optical Systems (**1**: AGS)

GLM L2 005 series. Validate GLM DE/FAR with Space-based Optical Systems (**2**: ISS/LIS, TARANIS)

GLM L2 006 series. Validate GLM DE/FAR with Ground Based Electric Field Networks (**2**: HAMMA, KSCFMA)

GLM L2 007 series. Validate and Tune GLM L0-L1b Filter Parameters (**0**: WITHDRAWN)

GLM L2 008 series. Validate GLM Continuing Current Detection Mode (**0**: WITHDRAWN)

GLM L2 009 series. Validate GLM L1b-L2 Cluster/Filter Algorithm (**1**: Ops Code compared w/ATBD Spec (Mach) Code)

GLM L2 010 series. Validate GLM L0-L1b Filter Algorithms (**7**: Solar Glint, Contrast Leakage, Transfer Noise, Coherency, Radiation, 2nd Level Threshold, Crosstalk; again Ops Code is compared w/ATBD Spec Code)

GLM INR 011 series. Validate GLM INR (**4**: ABI, Laser Beacons, Landmarks, Lightning)

GLM RAD 012 series. Validate GLM Background Deep Convective Cloud Radiances, and Perform Radiance Baselineing for Long-Term Trending, by Comparing to Other Measures of Background Radiances (**2**: ISS/LIS, TRMM/LIS)

GLM RAD 013 series. Validate GLM Event Energy, and Perform Energy Baselineing for Long-Term Trending, by Comparing to Other Measures of Event Energy (**3**: AGS, ISS/LIS, TRMM/LIS)

... So Total of **44** PLPTs from our Huntsville CWG/AWG group.

MSFC GLM Data Management Plan

